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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,131

01/06/2006

Peter Knoll

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26646

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09/19/2008

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EXAMINER

BLOUNT, ERIC

ART UNIT

PAPER NUMBER

2612

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/535,131	<b>Applicant(s)</b> KNOLL, PETER	
	<b>Examiner</b> ERIC M. BLOUNT	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 12-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Drawings*

1. The drawings were received on June 9, 2008. These drawings are accepted for examination.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 12-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kojima et al [US 6,327,522 B1].

With regard to **claim 12**, Kojima discloses an apparatus for improving a visibility in a motor vehicle, comprising:

at least one infrared-sensitive image sensor system (3, 23, 43) for acquiring an optical signal from a surrounding environment of the motor vehicle (column 1, lines 45-51);

at least one signaling arrangement (display 8, 28, 48) for producing an item of driver information (column 1, lines 35-41; driver information is interpreted as obstacle information provided to the driver); and

at least one processing unit (control means 1) for controlling the at least one signaling arrangement as a function of the acquired optical signal (column 1, lines 58-63), wherein:

the at least one processing unit includes an arrangement for recognizing a course of a roadway from at least the optical signal, and for controlling the at least one signaling arrangement for producing the item of driver information as a function of the recognized course of the roadway (column 1, line 58 – column 2, line 27; and column 8, lines 1-15; Kojima discloses that the image sensor is disposed to sense images of the landscape ahead of the vehicle. The control unit is operable to extract obstacle information from the sensed image. Because of the positioning of the image sensors, obstacles must be on the course of and also define the roadway. Capturing images ahead of the vehicle and extracting the obstacle information from the captured image for display to the user is viewed as recognizing the course of a roadway. The images for display to a driver show a detected obstacle along with vehicle lanes ahead of said driver's vehicle. These teachings meet the limitations of recognizing the course of the roadway. See figures.)

As for **claim 13**, the at least one processing unit includes an arrangement for recognizing at least one object (distance detection means 2, 22, 42), from at least the optical signal, and for controlling the at least one signaling arrangement as a function of a position of the at least one recognized object in relation to the course of the roadway (column 1, lines 45-67).

Regarding **claim 14**, the at least one object includes at least one of at least one other motor vehicle and at least one pedestrian (column 2, lines 51-57 and column 9, lines 17-30).

As for **claim 15**, the at least one processing unit includes an arrangement for controlling the at least one signaling arrangement as a function of at least one of a dangerousness of a

driving situation (obstacle closest to vehicle, indicating possible collision) and of a visibility condition (column 9, lines 17-30; column 10, lines 5-13; and column 21, lines 41-56).

Regarding **claim 16**, at least one sensor including at least one of at least one radar sensor, at least one ultrasonic sensor, and at least one LIDAR distance sensor, wherein: the at least one processing unit includes an arrangement for carrying out at least one of the recognition of the course of the roadway and the recognition of the at least one object as a function of a signal of the at least one additional sensor (distance detection means; column 1; lines 45-67).

As for **claim 17**, the item of driver information represents at least one object including at least one of at least one other motor vehicle, at least one pedestrian, and the course of the roadway (column 2, lines 51-57 and column 9, lines 17-30).

Regarding **claim 18**, the item of driver information includes at least one of at least one light pulse, at least one warning symbol, at least one image marking, at least one segment of an image, at least one acoustic signal, and at least one haptic signal (column 2, lines 10-27; column 4, lines 38-41; and column 12, lines 3-19).

Regarding **claim 19**, at least one infrared radiation source for illuminating at least a part of the surrounding environment, acquired by the at least one infrared-sensitive image sensor system, of the motor vehicle (column 1, lines 45-57).

As for **claim 20**, the at least one signaling arrangement includes one of at least one acoustic signaling arrangement and at least one optical signaling arrangement corresponding to at least one of at least one head-up display, at least one display screen, and at least one haptic signaling arrangement (column 1, lines 15-52).

As for **claim 21**, the claim is interpreted and rejected using the same reasoning as the claims above. It is inherent that the method steps are present in the invention disclosed by Kojima.

As for **claim 22**, the claim is interpreted and rejected using the same reasoning as any one of claims 13-20 above.

As for **claim 23**, for the purposes of rejection in the event that the 35 USC 101 rejection is overcome; Kojima discloses that the invention is executed using software (column 8, lines 49-52 and column 14, lines 7-11).

#### ***Response to Arguments***

4. Applicant's arguments filed on June 9, 2008 have been fully considered but they are not persuasive.

**Applicant argues:** Kojima does not identically disclose or even suggest the claim feature "at least one processing unit includes an arrangement for recognizing a course of a roadway from at least the optical signal, and for controlling the at least one signaling arrangement for producing the item of driver information as a function of the recognized course of the roadway."

**Examiner's response:** Kojima reasonably meets the limitations of the claim as presently presented for examination. Kojima discloses a display apparatus for a vehicle for assisting a driver in determining obstacles ahead of the vehicle which the driver must watch out for (see column 1, lines 35-57). Imaging devices are placed appropriately at the front of the vehicle for capturing images of the landscape ahead of the vehicle. Since a vehicle is to be driven on a roadway, it can be said that the imaging devices capture images of the roadway ahead of the

vehicle. If the sensing devices did not capture images of the roadway ahead of the vehicle then the invention would be useless. Further, each of the drawings 12A, 12B, 14, 15A, 15B, 18, 19, 20, 22, and 28 show display examples where the course of the roadway ahead of the vehicle is defined. Examiner interprets the course of the roadway as the landscape in the forward direction of the vehicle. Using these teachings, it is inherent that the processing unit recognizes the course of the roadway from the optical signal and that driving information is produced as a function of the recognized course of the roadway.

**Applicant argues:** There is no suggestion that the obstacle in Kojima must be on the road.

**Examiner's response:** While there is no suggestion that obstacle must be on the roadway in the Kojima reference, there is teaching that the system is for assisting the driver in viewing obstacles that the driver needs to be aware of. This teaching suggests that the imaging sensing devices are positioned to capture images that are associated with the roadway ahead of the vehicle. Even if the obstacle is not on the road it would be in close enough proximity to the roadway to warrant the driver's attention. Examiner views this as recognizing the course of the roadway. In other words, recognizing obstacles associated with the landscape ahead of the vehicle.

**Applicant argues:** Kojima clearly does not provide driver information as a function of the recognized course of roadway.

**Examiner's response:** Examiner respectfully disagrees. As stated by applicant the Kojima reference displays the obstacle with the shortest distance to the vehicle. Kojima is operable to display the distance to the obstacle (Figure 14). Displaying an obstacle along with distance is

viewed as providing driver information. Because the system must determine which obstacle (if more than one) is closest to the vehicle, examiner contends that the driver information is provided as a function of the recognized course of the roadway.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC M. BLOUNT whose telephone number is (571)272-2973. The examiner can normally be reached on Monday-Thursday 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Bugg can be reached on (571) 272-2998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric M. Blount/  
Examiner, Art Unit 2612

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